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Sincerely.

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# NONPROVISIONAL APPLICATION FOR LETTERS PATENT UNITED STATES OF AMERICA

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Be it known that I, Richard James McDermott, residing at 815 Heathland Court, Roswell, Georgia 30075, and I, Stephen Joel Zwonitzer, residing at 450 Loomis Avenue, Atlanta, Georgia 30312, and I, Brian David VanHiel, residing at 3993 Plumcrest Circle, Smyrna, Georgia 30082, citizens of the United States, have invented certain new and useful improvements in an

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### IN-GROUND TRAMPOLINE AND METHOD OF INSTALLATION THEREFOR

20 of which the following is a specification.

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### IN-GROUND TRAMPOLINE AND METHOD OF INSTALLATION THEREFOR

# TECHNICAL FIELD

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The present invention relates generally to trampolines, and more specifically to in-ground trampolines and methods of installation therefor. The present inground trampoline apparatus is particularly advantageous for provision of a safer, more accessible configuration in view of conventional above-ground trampoline systems, and a more cost-efficient, more easily installed and transported configuration in view of conventional in-ground trampoline systems.

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# BACKGROUND OF THE INVENTION

Trampolines have long provided popular recreational and sports related activities, and are increasingly utilized for establishing physical fitness via cardiovascular, strength and resistance training, and for improving physical control, coordination, and mental acuity. In particular, trampolines have found popular recreational use amongst children and young adults.

Trampolines have also historically been utilized by athletes engaged in competitive gymnastics. Other uses include dive training to simulate and practice aerial maneuvers.

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Although popular in use, above-ground trampolines are often characterized as unsafe recreational and/or sports training implements, due in large part to the significant and ever-increasing number of trampoline-related injuries. Specifically, the most common trampoline-related injuries 10 include sprains, cuts, contusions, and various forms of bodily fractures, including life-threatening fractures to the skull and spine. Many such injuries occur when the trampoline user falls from the above-ground trampoline and sustains injury upon impact with the surface below and/or 15 with other fixed objects in the area surrounding the trampoline. The extent of the injuries is often exacerbated by the added height of the above-ground trampoline. When combined with the jump height, the added height of the trampoline increases the energy of impact, 20 which, in turn, increases the extent and severity of the injuries.

In an effort to reduce the number of trampoline fall-related injuries, medical societies and associations have recommended that the trampoline jumping surface or mat be positioned at ground level, thereby significantly reducing the drop or fall height, and thus, the likelihood or severity of injuries resulting from same. Notwithstanding such recommendations, there have been barriers to implementing trampoline systems having a ground-level jumping surface, including cost, non-standard design and construction requirements, difficulties in construction, and/or difficulties in disassembling and relocating the inground trampoline unit.

In recognition of the advantage of placing the trampoline mat at ground-level for the safety of users, methods and devices have been developed to accommodate the trampoline mat at ground level; however, most such ground-level trampoline jumping surfaces are located indoors, typically within gymnasiums or other sports training centers, and are often formed and/or installed during initial construction of the building via an elaborate and expensive matrix of supports, and/or expensive concrete pouring procedures.

Although recreational users recognize the need for an in-ground trampoline system (i.e., placing the trampoline jumping mat or surface at ground level), there has heretofore not been a cost effective, convenient mechanism for individual homeowners or recreational users to install in-ground trampoline system to effectuate a safer jumping environment. Many homeowners have sought the skill and advice of professional landscapers in an attempt to construct an outdoor in-ground trampoline; however, many such landscapers often still resort to expensive and highly complex construction via railroad tie wall concrete pours, timber lattices, or the like, wherein such financially and/or often impractical solutions are problematic for the average homeowner. Additionally, because such available methods and constructs of outdoor in-ground trampoline systems are fixed or stationary structures incapable of being easily disassembled subsequent relocation and reconstruction, homeowners are limit and gauge disadvantageously forced to landscaping alterations around and in view of the original site of construction of the in-ground trampoline and the expense of moving same.

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Therefore, it is readily apparent that there is a need for an in-ground trampoline and method of installation therefor, wherein a user can enjoy the safety and accessibility of an outdoor ground-level trampoline jumping surface without undue expense and/or overly complex construction, and is provided with the further advantages and features described hereinbelow.

# BRIEF SUMMARY OF THE INVENTION

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Briefly described, in a preferred embodiment, the present invention overcomes the above-mentioned disadvantages and meets the recognized need for such a device by providing an in-ground trampoline and method of installation therefor, wherein a homeowner, trampoline enthusiast, athlete, gymnast, or the like, is provided with a safer, more accessible, ground level trampoline jumping surface configuration in view of conventional above-ground trampolines, and is further provided with a relatively inexpensive, easily constructed and transportable in-ground trampoline jumping surface support system in view of current in-ground trampoline methods of construction.

According to its major aspects and broadly stated, the present invention in its preferred form is an in-ground trampoline and method of installation therefor, having, in general, a retaining wall, upper and lower support rings, a trampoline mat and a plurality of coiled springs.

More specifically, the present invention is an inground trampoline and method of installation therefor, having a segmented retaining wall preferably formed from corrugated, galvanized steel, wherein the segments or sectional pieces of the retaining wall are preferably secured in a ring or circular configuration via upper and support rings preferably spanning the lower circumference of the assembled retaining wall. each sectional piece are preferably corrugations of vertically disposed (i.e., perpendicular to the ground), thereby facilitating manipulation and configuration of same to effectuate the preferred circular shape of the present in-ground trampoline apparatus. The retaining wall is preferably erected within a pre-dug pit and arranged such that each sectional piece of the retaining wall bears or abuts against the adjacent inner wall of the pit and provides lateral support therefor. The pit preferably is

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of sufficient depth so that the upper edge of the retaining wall remains substantially flush with the surrounding upper ground surface, thereby effectuating a desired ground-level trampoline jumping surface upon full assembly of the inground trampoline apparatus. The lower support ring cooperatively functions with the upper support ring to assist in structurally supporting the retaining wall.

Preferably, support ring comprises the upper plurality of holes or slots, each dimensioned to receive a first hooked-end of a coiled spring of a plurality of coiled springs, wherein the opposing, second hooked-end of each spring is preferably engaged with a corresponding anchor of a plurality of anchors disposed around the periphery of a trampoline mat, thereby providing tensioned A protective edge guard preferably support for same. securely engages the upper edge of the retaining wall to prevent injury from contact therewith. Additionally, peripherally-disposed protective padding and/or quards or cushions may be provided to encircle and overly the plurality of coiled springs and the upper support ring absorbing bodily impact imparted for purposes of thereagainst.

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Although the preferred embodiment of the present invention contemplates the tensioned support of a trampoline mat via the upper support ring and retaining wall, it is contemplated in an alternate embodiment that a pre-assembled above-ground trampoline could be lowered into a pit comprising the assembled retaining wall and upper and lower support rings, wherein the outer periphery of the above-ground trampoline could rest atop the upper support ring, and wherein the legs of the above-ground trampoline could contact the bottom of the pit to provide added support therefor.

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Additionally, although the preferred embodiment of the present invention contemplates fashioning a circular-shaped trampoline via the segmented retaining wall and upper and lower support rings, it is contemplated in an alternate embodiment that the segmented retaining wall and upper and lower support rings could be shaped or configured accordingly to provide an in-ground trampoline having any for exemplary purposes only, desired shape, such as, square, rectangular, oval, diamond, hexagonal, octagonal, and/or other suitable polygons or geometrical shapes.

Accordingly, a feature and advantage of the present invention is its ability to provide an in-ground trampoline to effectuate a ground level trampoline jumping surface.

Another feature and advantage of the present invention is its provision of a segmented retaining wall for effectively providing the requisite lateral support of ground adjacent the in-ground trampoline installation without need for expensive concrete pours or the like.

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Still another feature and advantage of the present invention is its provision of a segmented retaining wall formed from sheets of corrugated, galvanized metal for enhanced durability and structural support.

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Yet another feature and advantage of the present invention is its ability to provide a ground-level trampoline jumping surface, thereby providing a safer, more accessible configuration in view of conventional aboveground trampoline systems.

Yet still another feature and advantage of the present invention is its ability to adapt to and receive a pre-

assembled above-ground trampoline for in-ground installation.

A further feature and advantage of the present invention is its provision of segmented retaining walls and removable upper and lower support rings for facilitating the disassembly and relocation of the present in-ground trampoline apparatus.

Still a further feature and advantage of the present invention is its ability to provide a relatively inexpensive, easily constructed and transportable in-ground trampoline system in view of current in-ground trampoline methods of construction.

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Yet a further feature and advantage of the present invention is its ability to be utilized as an above-ground trampoline, wherein the retaining wall would advantageously preclude children and/or pets from crawling beneath the trampoline mat and becoming injured or killed from impact imparted thereon via jumpers above.

Yet still a further feature and advantage of the present invention is its simplicity of design.

Another and further feature and advantage of the present invention is its ease of assembly.

Still another and further feature and advantage of the present invention is its ease of manufacture and low-cost of production.

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Yet another and further feature and advantage of the present invention is its ability to provide an acceptable recreational lawn trampoline device and structure otherwise prohibited by many community regulations and/or homeowners' association clauses.

Yet still another and further feature and advantage of the present invention is its potential for lowering escalating homeowner insurance premiums often associated with the utilization of above-ground trampolines on one's property.

These and other features and advantages of the present invention will become more apparent to one skilled in the art from the following description and claims when read in light of the accompanying drawings.

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## BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be better understood by reading the Detailed Description of the Preferred and Alternate Embodiments with reference to the accompanying drawing figures, in which like reference numerals denote similar structure and refer to like elements throughout, and in which:

- 15 **FIG. 1** is an exploded perspective view of an in-ground trampoline apparatus according to a preferred embodiment of the present invention;
- FIG. 2 is a perspective view of a retaining wall of an in-ground trampoline apparatus according to a preferred embodiment of the present invention, shown recessed within an earthen pit;

FIG. 3 is an exploded perspective view of a series of sectional pieces of a retaining wall construct of an inground trampoline apparatus according to a preferred embodiment of the present invention;

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- FIG. 4 is a perspective view of a fully assembled inground trampoline apparatus according to a preferred embodiment of the present invention;
- 10 **FIG. 5** is an exploded perspective view of an in-ground trampoline apparatus according to an alternate embodiment of the present invention;
- FIG. 6 is perspective view of an in-ground trampoline

  15 apparatus according to an alternate embodiment of the present invention;
  - FIG. 7 is perspective view of an in-ground trampoline apparatus according to an alternate embodiment of the present invention;

- FIG. 8 is perspective view of an in-ground trampoline apparatus according to an alternate embodiment of the present invention;
- FIG. 9 is perspective view of an in-ground trampoline apparatus according to an alternate embodiment of the present invention;
- FIG. 10 is perspective view of an in-ground trampoline

  10 apparatus according to an alternate embodiment of the

  present invention; and,
- FIG. 11 is perspective view of an in-ground trampoline
  apparatus according to an alternate embodiment of the
  15 present invention.

# DETAILED DESCRIPTION OF THE PREFERRED AND ALTERNATIVE EMBODIMENTS

In describing the preferred and alternate embodiments of the present invention, as illustrated in FIGS. 1-11, specific terminology is employed for the sake of clarity. The invention, however, is not intended to be limited to

the specific terminology so selected, and it is to be understood that each specific element includes all technical equivalents that operate in a similar manner to accomplish similar functions.

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Referring now to FIG. 1, the present invention in a preferred embodiment is an in-ground trampoline apparatus 10 and method of installation therefor, wherein apparatus 10 comprises, in general, segmented retaining wall 20, segmented upper support ring 40, segmented lower support ring 50, trampoline mat 60, plurality of coiled springs 70, edge guard 80 and protective pad 90.

Specifically, retaining wall 20 is preferably formed

from a plurality of substantially rectangular, arcuateshaped sectional pieces 22, each preferably formed from
sheets of corrugated, galvanized steel for enhanced
durability and structural integrity; although other
suitable corrugated or non-corrugated materials could be

utilized, such as, for exemplary purposes only, titanium,
iron alloys, other metals and/or metal alloys, plastics,
fiber-reinforced plastics, combined cellulose fiber and
cement substrates, fiberglass, carbon-fiber composites,

vinyl substrates, cementitious substrates, non-cementitious substrates, and/or other suitable materials. Corrugations 21 of each sectional piece 22 are preferably vertically disposed (i.e., perpendicular to the ground), thereby facilitating manipulation and configuration of each sectional piece 22 to effectuate the preferred circular shape of retaining wall 20 of apparatus 10, as more fully described below, and to provide optimal strength, load-bearing and deflection characteristics.

Preferably, retaining wall 20 is erected within predug, circular-shaped earthen pit P and arranged such that each sectional piece 22 of retaining wall 20 bears or abuts against a respective adjacent portion of inner wall W of pit P and provides lateral support therefor. Although construction of retaining wall 20, and apparatus 10 in general, is implemented within pit P, it should be recognized that any type of earthen pit, basin, ditch, indoor recessed area, or outdoor recessed area could be utilized without departing from the appreciative scope of the present invention.

As best illustrated in FIG. 2, pit P preferably is of sufficient depth so that upper edges 24 of sectional pieces 22 of retaining wall 20 are substantially flush with the surrounding upper ground surface  $\mathbf{S}$ , thereby effectuating a desired ground-level trampoline jumping surface upon full assembly of in-ground trampoline apparatus 10. When positioned within pit P, bottom edges 28 of sectional piece pieces 22 preferably contact the bottom earthen surface of pit P. Although retaining wall 20 is preferably erected within pit P, it is contemplated in an alternate embodiment that retaining wall 20 could be assembled, in full or in part, prior to recessing same within pit P. Pit P could be to provide further edges 28 trenched below bottom reinforcement or to compensate for localized or generalized inconsistencies of depth. Additionally, although retaining wall 20 is preferably bottomless, it is contemplated in an alternate embodiment that a suitable bottom wall could be incorporated therewith if so desired.

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Best seen with reference to FIGS. 1 and 3, in arranging and positioning sectional pieces 22 of retaining wall 20 to effectuate a desired circular configuration, the first complete corrugation 21 formed on either opposing

side 26 or 30 of a first sectional piece 22 is preferably brought into overlapping contact with the first complete corrugation 21 formed on either opposing side 26 or 30 of a second sectional piece 22. Although the preferred assembly of retaining wall 20 contemplates overlapping engagement of the first complete corrugation 21 of either opposing side 26 or 30 of each sectional piece 22, it is contemplated in an alternate embodiment that overlapping engagement could be effectuated via overlapping any number of complete corrugations 21 formed on either opposing side 26 or 30 of each sectional piece 22. Preferably, and as more fully described below, to retain and secure a first sectional piece 22 in overlapping engagement with a second sectional piece 22, segmented upper and lower support rings 40 and 50, respectively, are securely joined thereto, wherein each sectional piece 22 is preferably similarly systematically and securely joined via segmented upper and lower support rings 40 and 50, respectively, to form completed retaining wall 20.

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Specifically, segmented upper support ring 40 preferably comprises a plurality of arcuate-shaped support members 42, each preferably formed from tubular steel for

enhanced durability and structural integrity; although other suitable materials could be utilized, such as, for exemplary purposes only, titanium, iron alloys, fiberreinforced plastics, combined cellulose fiber and cement substrates, fiberglass, carbon-fiber composites, vinyl substrates, and/or other suitable materials. Additionally, to facilitate interlocking and secured engagement between each support member 42, each support member 42 preferably is provided with substantially squared male end 44, and opposingly positioned substantially squared female end 46, wherein male end 44 of each support member 42 is preferably dimensioned to be received within a female end 46 of each adjacently positioned support member 42. Each support member 42 further preferably includes throughholes 42a and 42b utilized to bolt and secure a sectional piece 22 of retaining wall 20 thereto, as more fully described below. Although male and female ends 44 and 46, respectively, are substantially squared, it is contemplated in an alternate embodiment that other shapes could be utilized such as, for exemplary purposes only, circular or other multi-sided polygons. It is further contemplated that male and female ends 44 and 46, respectively, could be replaced by, or incorporated in conjunction with, other suitable fastening

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mechanisms, such as, for exemplary purposes only, clamps, ties, rivets, pins, bolts, screws, and/or other suitable fasteners or fastener systems. Additionally, it is contemplated that each support member 42 could include any number of throughholes for bolting and securing a sectional piece 22 of retaining wall 20 thereto.

Similarly, segmented lower support ring 50 preferably comprises a plurality of arcuate-shaped support members 52, each also preferably formed from tubular steel for enhanced durability and structural integrity; although suitable materials could be utilized, such as, exemplary purposes only, titanium, iron alloys, fiberreinforced plastics, combined cellulose fiber and cement substrates, fiberglass, carbon-fiber composites, vinyl substrates, and/or other suitable materials. Likewise, to facilitate interlocking and secured engagement between each support member 52, each support member 52 preferably is provided with substantially squared male end 54, and opposingly positioned substantially squared female end 56, wherein male end 54 of each support member 52 is preferably dimensioned to be received within a female end 56 of each adjacently positioned support member 52. Each support

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member 52 further preferably includes throughholes 52a and 52b utilized to bolt and secure a sectional piece 22 of retaining wall 20 thereto, as more fully described below. Although male and female ends 54 and 56, respectively, are substantially squared, it is contemplated in an alternate embodiment that other shapes could be utilized such as, for exemplary purposes only, circular or other multi-sided polygons. It is further contemplated that male and female ends 54 and 56, respectively, could be replaced by, or incorporated in conjunction with, other suitable fastening mechanisms, such as, for exemplary purposes only, clamps, ties, rivets, pins, bolts, screws, and/or other suitable is fasteners or fastener systems. Additionally, contemplated that each support member 52 could include any number of throughholes for bolting and securing a sectional piece 22 of retaining wall 20 thereto.

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Referring now more specifically to FIG. 3, each sectional piece 22 preferably includes throughholes 32 and 34 formed proximal the upper corners thereof, and throughholes 36 and 38 formed just below the mid-region thereof. As such, in assembling retaining wall 20, throughholes 32 and 36 of first sectional piece 22A

preferably align with throughholes 34 and 38, respectively, of second sectional piece 22B when the first complete corrugations 21 of side 30 and side 26 of first and second sectional pieces 22A and 22B, respectively, are brought into overlapping engagement. As such, upon alignment of throughholes 32 and 36 of first sectional piece 22A with throughholes 34 and 38 of second sectional piece 22B, support members 42 and 52 of upper and lower support rings 40 and 50, respectively, are preferably accordingly engaged therewith.

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More specifically, throughhole 42a of a first support member 42 preferably aligns with throughholes 32 and 34 of first and second sectional pieces 22A and respectively, wherein a bolt B or other suitable fastener is preferably inserted therethrough for securing same. Similarly, throughhole 52a of a first support member 52 preferably aligns with throughholes 36 and 38 of first and second sectional piece 22A and 22B, respectively, wherein a bolt B or other suitable fastener is also preferably inserted therethrough for securing same. Likewise, third sectional piece 22C is preferably secured to first sectional piece 22A via aligning throughhole 42b of first

support member 42 with throughholes 34 and 32 of first and third sectional pieces 22A and 22C, respectively, wherein a bolt B or other suitable fastener is preferably inserted therethrough for securing same. Similarly, throughhole 52b of first support member 52 preferably aligns with throughholes 38 and 36 of first and third sectional pieces 22A and 22C, respectively, wherein a bolt B or other suitable fastener is also preferably inserted therethrough for securing same.

Preferably, a plurality of such sectional pieces 22 are secured to one another in similar systematic fashion, wherein additional support members 42 and 52 of segmented upper and lower support rings 40 and 50, respectively, are accordingly engaged to one another via corresponding male ends 44 and 54, and female ends 46 and 56, thereof to form the completed retaining wall 20. Preferably, when retaining wall 20 is in its completed configuration, segmented upper and lower support rings 40 and 50, respectively, each supportively span the inner circumference of assembled retaining wall 20, providing structural integrity thereto.

Although support members 42 and 52 of segmented upper and lower support rings 40 and 50, respectively, are generally round tubular-shaped, it is contemplated in an alternate embodiment that other suitable shapes and/or mechanisms could be utilized to selectively manipulate the configuration and/or structural integrity of retaining wall 20, such as, for exemplary purposes only, tubing having a rectangular or square cross-section, metal strips or strapping, cabling, ties, lattice structures, and/or the like.

Referring collectively now to FIGS. 1 and 4, each support member 42 of upper support ring 40 preferably comprises a plurality of holes or slots 48, each dimensioned to receive a first hooked-end 72 of a coiled spring 70, wherein opposing, second hooked-end 74 of each spring 70 is preferably engaged with a corresponding anchor 62 disposed around the periphery of trampoline mat 60. Preferably, upon engaging all springs 70 with anchors 62 and corresponding holes or slots 48 of upper support ring 40, trampoline mat 60 is preferably held in tensioned support across pit P. Although springs 70 provide the preferred form of tensional support for trampoline mat 60,

it is contemplated in an alternate embodiment that other suitable forms of tensional supports could be utilized such as, for exemplary purposes only, bungee cords, resilient straps, and/or other resilient or elastic bodies.

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Preferably, ring-shaped protective edge guard 80 is dimensioned to securely engage upper edges 24 of sectional pieces 22 of retaining wall 20 to prevent bodily injury from contact therewith, wherein edge guard 80 is preferably formed from any suitable protective material, such as, for exemplary purposes only, durable rubber, plastic, padded fabric or the like. Additionally, peripherally-disposed protective padding 90, and/or other guards or cushions, preferably encircles and overlies the plurality of coiled springs 70, upper support ring 40, and upper edges 24 of sectional pieces 22 for purposes of absorbing bodily impact imparted thereagainst and reducing the potential for injury.

20 Although the preferred embodiment of the present invention contemplates the tensioned support of trampoline mat 60 via springs 70, upper support ring 40 and retaining wall 20, as best illustrated in FIG. 5, it is contemplated

in an alternate embodiment that a pre-assembled aboveground trampoline T could be lowered into pit P comprising
assembled retaining wall 20 and upper and lower support
rings 40 and 50, respectively, wherein the outer periphery
of above-ground trampoline T could rest atop upper support
ring 40, and wherein support legs L of above-ground
trampoline T could contact the bottom of pit P to provide
added support therefor. When utilized in such a fashion,
select elements of the preferred embodiment become
optionally provided, such as, for exemplary purposes only,
springs 70 and/or holes or slots 48.

Additionally, although the preferred embodiment of the present invention contemplates fashioning a circular-shaped trampoline via segmented retaining wall 20, and upper and lower support rings 40 and 50, respectively, it is contemplated in an alternate embodiment that segmented retaining wall 20, and upper and lower support rings 40 and 50, respectively, could be shaped or configured accordingly to provide an in-ground trampoline having any desired shape, such as, for exemplary purposes only, square, rectangular, oval, diamond, hexagonal, octagonal, and/or other suitable polygons or geometric shapes, wherein pit P

could be dug and shaped in accord with the selected configuration/shape of in-ground trampoline 10.

It is contemplated in another alternate embodiment that the present in-ground trampoline apparatus 10 could be utilized as an above-ground trampoline, wherein retaining wall 20 could advantageously preclude children and/or pets from crawling beneath trampoline mat 60 and becoming injured or killed from impact imparted thereon via jumpers above. In such an alternate embodiment, it is contemplated that the exterior surface of retaining wall 20 could be suitably painted, decorated, skirted, enclosed, otherwise, to enhance the overall aesthetic appearance of In conjunction with, or in placement of, aesthetic enhancement to the exterior of retaining wall 20, it is 15 contemplated that warning signs or the like could be placed thereon to prevent children from running into and colliding therewith. Additionally, it is contemplated in such a configuration that retaining wall 20 could sit or be placed at ground level, or, alternatively, be partially recessed 20 within a shallow pit.

Referring now to FIG. 6, it is contemplated in another alternate embodiment that the present in-ground trampoline apparatus 10 of the preferred and/or alternate embodiments could incorporate a plurality of slots or throughholes 148 formed through upper edges 24 of sectional pieces 22 of retaining wall 20, thereby facilitating attachment of springs 70 directly thereto, instead of upper support ring 50.

Referring now to FIG. 7, it is contemplated in still another alternate embodiment that the present in-ground trampoline apparatus 10 of the preferred and/or alternate embodiments could incorporate multiple overlapping layers L of sectional pieces 22 of retaining wall 20, wherein the overlapping edges or seams of sectional pieces 22 contained within a first layer would not be aligned with the overlapping edges or seams of sectional pieces 22 contained within a second layer. It is further contemplated in such an alternate embodiment that sectional pieces 22 could be stacked and arranged in a manner equivalent to that of brick structures, wherein multiple courses of sectional pieces 22 could be utilized, and wherein the seams of sectional pieces 22 could be utilized, and wherein the seams

be staggered from the seams of sectional pieces 22 contained within a second layer to preclude alignment of same. This latter embodiment may further incorporate thicker sectional pieces 22 within a lower row to provide foundational and/or structural integrity to the final constructed retaining wall.

It is contemplated in still another alternate embodiment that the present in-ground trampoline apparatus 10 of the preferred and/or alternate embodiments could incorporate a plurality of safety mechanisms to further assist in reducing the likelihood of injury, such as, for exemplary purposes only, peripheral netting, oversized, peripherally-disposed protective padding, and the like.

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It is contemplated in still another alternate embodiment that retaining wall 20 could comprise any number of sectional pieces 22, or alternatively, could be manufactured as a single, pre-formed unit 122, as best illustrated in FIG. 8.

It is contemplated in yet another alternate embodiment that retaining wall 20 be formed from a

plurality of corrugated or non-corrugated piping 120, as best illustrated in FIG. 9.

It is contemplated in yet another alternate embodiment that a retaining wall 220 could be inverted, truncated conical-shaped having either a closed or open bottom, thereby reducing the area and amount of digging or removal of soil necessary to recess retaining wall 220 within earthen pit P, as best illustrated in FIG. 10.

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It is contemplated in yet another alternate embodiment that a retaining wall 320 could be a shallow, parabolic or bowl-shaped structure having either a closed or open bottom, thereby reducing the area and amount of digging or removal of soil necessary to recess retaining wall 220 within earthen pit P, as best illustrated in FIG. 11.

It is contemplated in yet another alternate

20 embodiment that upper support ring 40 could comprise any
number of support members 42 or, alternatively, could be
manufactured as a single, pre-formed unit.

It is contemplated in yet another alternate embodiment that lower support ring 50 could comprise any number of support members 52 or, alternatively, could be manufactured as a single, pre-formed unit.

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It is contemplated in yet another alternate embodiment that sand and/or pea gravel could be back-filled around bottom edges 28 of sectional pieces 22 of retaining wall 20 following assembly of same in pit P, thereby providing appropriate water drainage thereabout.

It is contemplated in yet another alternate embodiment that once apparatus 10 is fully assembled and installed within pit P, a marginal annular ring of wood chips, rubber pieces, or other suitable material, preferably approximately 3-feet wide and 3-inches deep, could be placed around the periphery of padding 90 for an added safety barrier. Such a barrier advantageously may reduce weed and grass intrusion into the jumping area, and reduce landscape maintenance requirements.

Having thus described exemplary embodiments of the present invention, it should be noted by those skilled in

the art that the within disclosures are exemplary only, and that various other alternatives, adaptations, and modifications may be made within the scope of the present invention. Accordingly, the present invention is not limited to the specific embodiments illustrated herein, but is limited only by the following claims.